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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,661	12/27/2004	Donald L. Rymer	AD6871USPCT	7413

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EXAMINER
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BERNSHTEYN, MICHAEL

ART UNIT	PAPER NUMBER
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1796

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12/10/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/519,661	<b>Applicant(s)</b> RYMER ET AL.	
	<b>Examiner</b> MICHAEL M. BERNSHTEYN	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 and 13-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6 and 8-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-6 and 8-18 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This Office Action follows a response filed on August 27, 2008. Claims 6, and 9-11 have been amended; no claims have been cancelled or added.
2. Claims 6 and 8-12 are active.

### ***Claim Rejections - 35 USC § 103***

3. The text of this section of Title 35 U.S.C. not included in this action can be found in a prior Office Action.
4. Claims 6, 8 and 10-11 are rejected under 35 U.S.C. § 103(a) as being unpatentable as obvious over Klock et al. (EP 0 402 213 A1) in view of Rombach et al. (U. S. Patent 3,153,009), for the rationale recited in paragraph 7 of Office Action dated on November 28, 2006.
5. Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Klock et al. in view of Rombach et al. as applied to claims 6, 8 and 10-11 above and further in view of Aurenty et al. (U. S. Patent 6,472,054), for the rationale recited in paragraph 8 of Office Action dated on November 28, 2006.
6. Claim 12 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Klock et al. in view of Rombach et al. as applied to claims 6, 8 and 10-11 above and further in view of Kroggel et al. (U. S. Patent 5,559,175), for the rationale recited in paragraph 9 of Office Action dated on November 28, 2006.

***Response to Arguments***

7. Applicants traverse the rejection under 35 U.S.C. § 103(a) of claims 6-8 and 10-11 as being unpatentable as obvious over Klock et al. (EP 0 402 213 A1) in view of Rombach et al. (U. S. Patent 3,153,009), the rejection under 35 U.S.C. § 103(a) of claim 9 as being unpatentable over Klock et al. in view of Rombach et al. as applied to claims 6-8 and 10-11 above and further in view of Aurenty et al. (U. S. Patent 6,472,054), and the rejection under 35 U.S.C. § 103(a) of claim 12 as being unpatentable over Klock et al. in view of Rombach et al. as applied to claims 6-8 and 10-11 above and further in view of Kroggel et al. (U. S. Patent 5,559,175). Applicant's arguments have been fully considered but they are not persuasive.

8. Regarding to the Applicants arguments that “Surprisingly, the M/R ratio of the polymer produced in the claimed process is lower than that which is considered necessary in the Klock reference, and yet the product still has a tensile creep that is low enough for the polymer to be useful as the interlayer of a safety glass windshield. See Klock, page 3 at lines 7 to 18; English translation, last two paragraphs of page 3 and first paragraph of page 4) (page 8, 2<sup>nd</sup> paragraph), it is noted that the first reference by Klock, which is the closest prior art, clearly discloses that the final products have a hydroxyl number between 18 and 22 and meso to racemic ratio (M/R) within the claimed range (examples 1-4, pages 8-11).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a tensile creep, etc.) are not recited in the rejected claim(s). Although the claims

are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

9. Regarding the Applicants arguments that the M/R ratios of the examples 1-4 are out of the claimed range (page 9, table 1), and data are not consistent with the view expressed in the Official Action (page 4), it is worth to mention that two main examples (EP'213, pages 8-10, Examples 1 and 2) clearly have M/R ratios about 4, which is within the claimed range.

10. In response to the arguments that Rombach, when considered individually, provides no teaching or suggestion regarding the stereochemistry of the polymer, or the role of the type and level of the surfactant in determining the stereochemistry (M/R ratio), and nor is there, in Rombach, any mention whatsoever of sodium methyl cocoyl taurate, the surfactant required by the plain language of newly amended claim 6, or of tensile creep, which is correlated both with the polymer's stereochemistry and the surfactant type and level (pages 8-9, the bridging paragraph), it is noted that Rombach's reference was use only like the second reference and it should not contains all the limitations of claim 6.

11. Furthermore, it is noted that in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

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12. In response to the arguments that Aurenty, however, whether considered alone or in combination with Klock and Rombach, provides no teaching or description that would lead one to expect any surprising advantages whatsoever based on the identity or amount of a surfactant, much less the surprising advantages described with particularity above (page 9, 3<sup>rd</sup> paragraph), it is noted that Aurenty clearly discloses the usage of alkyl tail surfactants, and illustrative examples of alkyl tail surfactants include sodium dodecylsulfate, isopropylamine salts of an alkylarylsulfonate, sodium dioctyl succinate, **sodium methyl cocoyl taurate**, dodecylbenzene sulfonate, etc. (US'054, col. 6, lines 57-64). It is important that Aurenty discloses the claimed sodium methyl cocoyl taurate as preferable **surfactant**, not like a possible additive, optional filler, etc.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate sodium methyl cocoyl taurate as taught by Aurenty in Klock and Rombach's process for preparing PVB composition because all of the above surfactants are functionally equivalents and can substitute each other.

"It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980) (citations omitted) (Claims to a process of preparing a spray-dried detergent by mixing together two conventional spray-dried detergents were held to be *prima facie* obvious.). See also *In re Crockett*, 279 F.2d 274, 126 USPQ 186 (CCPA 1960) (Claims directed to a method and material for

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treating cast iron using a mixture comprising calcium carbide and magnesium oxide were held unpatentable over prior art disclosures that the aforementioned components individually promote the formation of a nodular structure in cast iron.); and ***Ex parte Quadranti***, 25 USPQ2d 1071 (Bd. Pat. App. & Inter. 1992) (mixture of two known herbicides held *prima facie* obvious).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use mixtures of sodium dioctyl succinate, as it was exemplified by Klock and sodium methyl cocoyl taurate as taught by Aurenty as the surfactants in the process for preparing a polyvinyl butyral resin composition with reasonable expectation of success because these surfactants were already used in the analogous processes with positive results.

13. In response to applicant's argument that Aurenty reference is not an analogous art, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter, 1985).

14. In response to the arguments that Kroggel is cited to support the proposition that all strong mineral acids are interchangeable in Applicants' claimed processes, and this proposition may hold true in the art of synthesizing polyvinyl butyral dispersions, to which Kroggel pertains, but it is inapposite, however, to Applicants' claimed processes in stark contrast with the compositions that are the products of Applicants' claimed processes because the dispersions described by Kroggel are free of emulsifiers and

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surfactants (page 9, 4<sup>th</sup> paragraph), it is noted again that Kroggel clearly discloses a process for the preparation of polyvinyl acetal, therefore it is the close prior art.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ phosphoric acid as taught by Kroggel in combined Klock and Rombach's process for producing polyvinyl butyral resin instead of hydrochloric acid because they are functional equivalents and can be substituted by each other with reasonable expectation of success.

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL M. BERNSHTEYN whose telephone number is (571)272-2411. The examiner can normally be reached on M-Th 8-6:30.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael M. Bernshteyn/  
Examiner, Art Unit 1796

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